

PROJECT TITLE : A P L
PROJECT LEADER : R. TOIMIL
PERIOD COVERED : January 7th - January 25th 1980
WRITTEN BY : R. TOIMIL

During January 1980, the card-indices of APL programs has been increased. These programs enables us to realize graphical and statistic analyses, either on values taken in a card-indices, or on values introduced manually in the terminal.

THE FOLLOWING PROGRAMS HAVE BEEN DEVELOPED :

- 1) HISTOGRAM
- 2) HISTO, PLOT (Histogram with graph of frequency)
- 3) REG, PLOT
- 4) "SAISIE"
- 5) CORR, MUL
- 6) TEST, F
- 7) "ENLEVE" (Take away)

1) HISTOGRAM

This program enables us to calculate the standard deviation (S), the average, the minimum and the maximum of a sample, the number and the center of classes, the number and the percent per classes (See enclosure 1).

2) HISTO, PLOT

This program enables us to illustrate the histogram. In addition, it draws the average, the graph between the center of each class and the limits at 2'S of each side of the average (95 % of the values) (See enclosure 2).

3) REG, PLOT

This program enables us to illustrate the relation between two given parameters. It calculates the function $y=f(x)$ asked by the operator on the basis of the programs of regressions (See monthly report of October 1979). On the basis of this function, it calculates the coefficient of correlation (R^2) and the associated standard deviation (S. Y, X) (See enclosure 3).

4) "SAISIE"

Under the "REG, PLOT" program, it enables us to write down a title on the graph.

5) CORR, MUL

Under the "REG, PLOT" and "REGRESSION" programs, it enables us to calculate the multiple regression of a sample composed of several variables (i.e. polynomial correlation of nth degree).

6) TEST, F

This program enables us to calculate the F test of a correlation.

7) "ENLEVE" (Take away)

It enables us to take away from a matrix of values all these which are not necessary for analysis.

EXPLOITATION OF THE APL CARD-INDICE

Some work on the TLA card-indice has been realized for the Leaf Department PME in collaboration with Miss L. Joseph.
The results of this work will be presented on the 29th of February 1980.



R. Toimil

28/01/1980/RAT/cap

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3.050	2.980	1.590	1.990	3.020	3.020	3.110	2.350	1.640	1.340	1.670	1.850	1.970	2.440	3.770	3.770	4.430	3.770	3.830	4.260
3.830	3.840	4.260	4.260	3.720	3.810	3.750	4.540	3.280	3.590	1.870	3.170	3.170	3.290	3.070	3.600	1.460	4.030	2.450	
2.630	1.510	1.770	2.720	2.720	2.720	3.180	2.980	3.260	3.220	3.440	2.590	3.520	2.890	3.290	3.480	2.590	3.500	3.440	
3.630	2.760	2.700	3.250	3.630	3.750	3.590	3.560	3.300	3.790	1.810	1.510	3.130	3.120	3.350	1.800	2.580	2.330	2.270	
2.040	2.420	2.850	2.850	2.390	2.140	2.700	2.910	2.830	2.980	2.520	2.810	3.160	3.230	3.120	2.150	2.920	2.210	2.680	
2.730	2.470	2.070	3.010	3.100	3.340	3.360	3.500	2.940	3.620	2.150	2.050	2.740	2.860	2.680	2.990	2.500	2.120	2.720	
2.830	2.900	2.950	2.550	3.060	3.250	3.500	3.620	3.470	3.510	3.900	3.900	3.900	4.040	4.000	2.910	4.010	4.100	4.160	
4.410	4.810	4.360	4.300	4.440															

HISTOGRAMME A
DONNEZ LA LARGEUR DES CLASSES

5
NBR. DE CLASSES : 7
LARGEUR DES CLASSES : 0.5
MIN. DE L'ECHANTILLON : 1.34
MAX. DE L'ECHANTILLON : 4.81
NBR. D'OBSERVATIONS : 139
ETENDUE DE L'ECHANTILLON : 3.47
MOYENNE DE L'ECHANTILLON : 3.06
ECART-TYPE (S) : 0.748

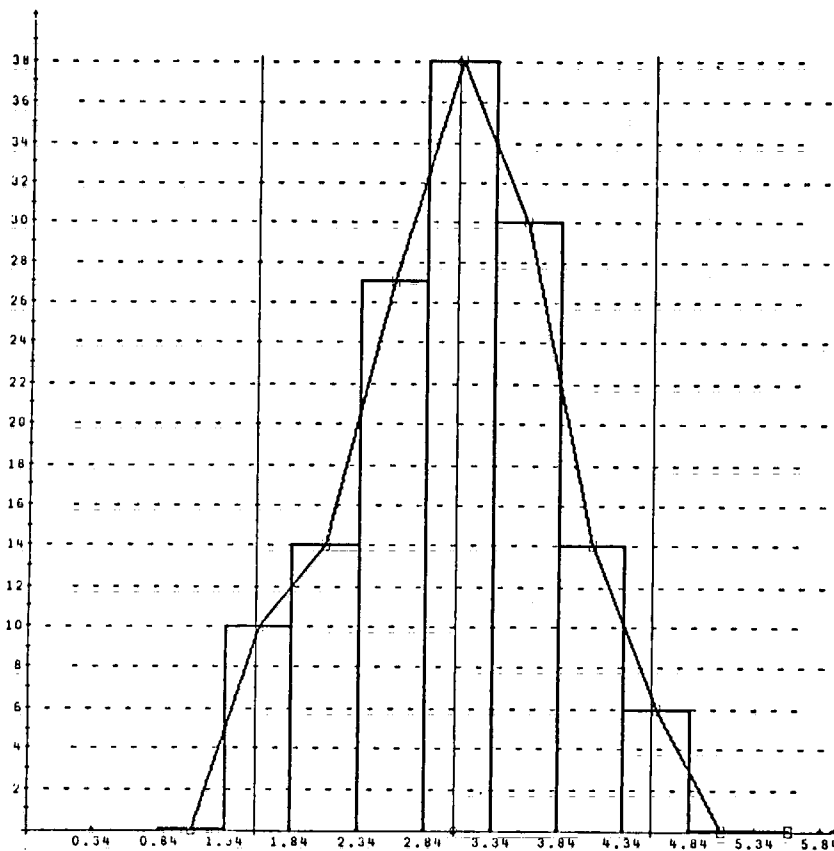
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CENTRE DES CLASSES	:	1.090	1.590	2.090	2.590	3.090	3.590	4.090	4.590	5.090	5.590
NBR. PAR CLASSE	:	.000	10.000	14.000	27.000	38.000	30.000	14.000	6.000	.000	.000
I PAR CLASSE	:	.000	7.194	10.072	19.424	27.338	21.583	10.072	4.317	.000	.000

A REPRESENTE LE T.A. EN MILLIGRAMMES PAR CIGARETTE POUR LES LOTS FLUE-CURED BASIC

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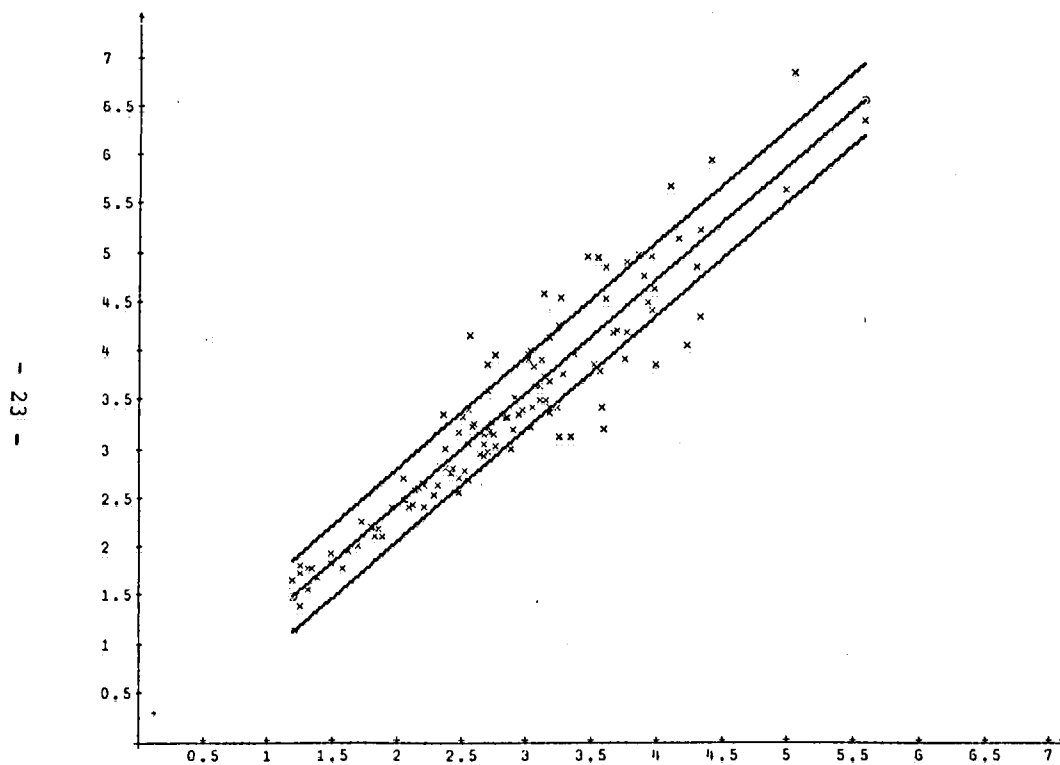


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CENTRE DES CLAS	1	1.090	1.590	2.090	2.590	3.090	3.590	4.090	4.590	5.090	5.590
NBR. PAR CLASSE	1	.000	10.000	14.000	27.000	38.000	30.000	14.000	6.000	.000	.000
% PAR CLASSE	1	.000	7.194	10.072	19.424	27.338	21.583	10.072	4.317	.000	.000

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RELATION ENTRE LES CRITERES 85 ET 106
 X REPRESENTA : SN POUR DES LOTS FLUE-CURED BASIC
 Y REPRESENTA : SN POUR DES LOTS FLUE-CURED BASIC
 L'UNITE DE X EST: MILLIGRAMME PAR CIGARETTE
 L'UNITE DE Y EST: MILLIGRAMME PAR GRAMME DE TABAC BRULE



YF(X) Y:1.15*X+0.126
 R CARRE R:0.878
 ECART-TYPE LIE SYX:0.373
 NR.D'OBSERVATIONS NR:139

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